



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,567	02/27/2002	Tetsuya Ueda	MTS-3308	8971

7590 11/30/2004

ALLAN RATNER
One Westlakes, Berwyn, Suite 301
P.O. Box 980
Valley Forge, PA 19482-0980

EXAMINER

WILLS, MONIQUE M

ART UNIT PAPER NUMBER

1746

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,567

Applicant(s)

UEDA ET AL.

Examiner

Monique M Wills

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 & 6- 7 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

The information disclosure statements filed February 27, 2002 has/have been received and complies with the provisions of 37 CFR 1 .97, 1.98 and MPEP § 609.

Foreign Priority Documents

The Japanese foreign priority document(s) 2001-051,793 filed February 27, 2001 and submitted under 35 U.S.C. § 119 (a)- (d), has/have been received and placed of record in the file.

Allowable Subject Matter

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The instant claim would be allowable over the prior art of record because the prior art is silent to the fuel cell generation system of claim 1 further including: a reformer with a burner; and a frame member constituting an outer wall of the first compartment with (1) an inlet for a combustion fan for supplying air to the burner and (2) an outlet for said reformer for discharging combustion gas from said reformer.

Claim Rejections - 35 USC § 102

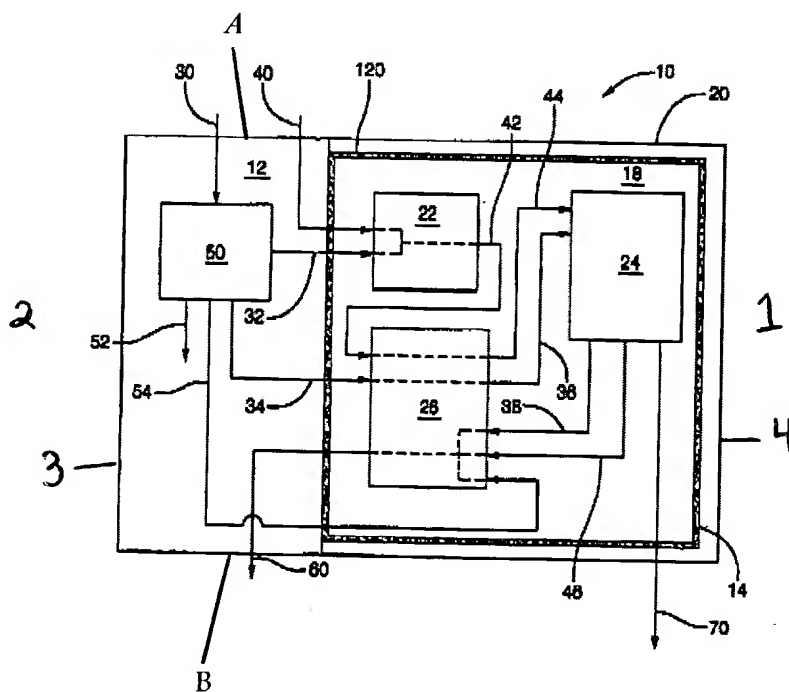
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Armstrong U.S. Patent 6,682,841.

In re claim 1, Armstrong teaches a fuel cell generation system



Art Unit: 1746

comprising: a first compartment (1) and a second compartment (2) provided by partitioning an interior of a package (20) with a partition wall (14); a reformer (22) and fuel cell body (24) are placed within the first compartment (1); a control unit for controlling the fuel cell body (24) is placed within said second compartment (col. 3, lines 10-15); and an air blower (50) for supplying air to the fuel cell body (24), is placed within the second compartment (2), wherein ventilation of the first compartment (1) is achieved via byproduct stream (60), see column 6, lines 50-65, and ventilation of the second compartment (2) is independently achieved through stream (52). See Figure 1.

With respect to claim 2, an inlet (40) is provided in an outer wall (A) of frame member (3) in the second compartment (2); an air outlet (60) is located in outer wall (B) for discharging exhaust gas from said fuel cell body (24) (column 6, lines 55-68); and an inlet (30) of said air blower (50) opens into an interior of said second compartment (2). See Figure 1.

Therefore, the instant claims are anticipated by Armstrong.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

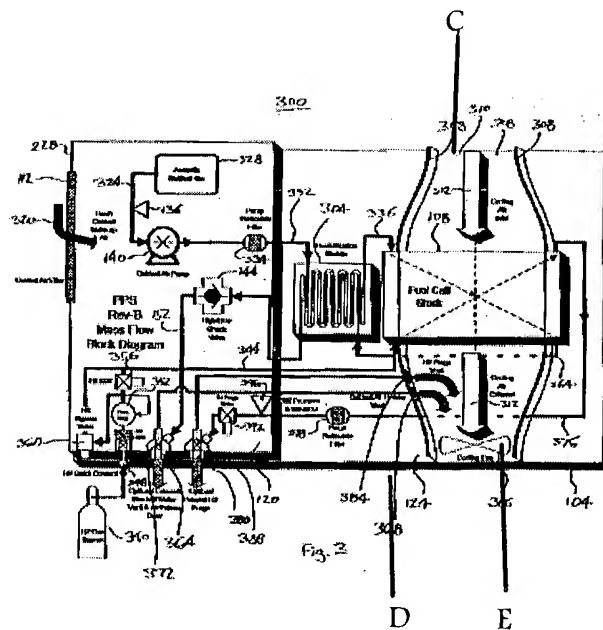
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong U.S. Patent 6,682,841 in view of Schmidt U.S. Pub. 2004/0072046.

Armstrong teaches a fuel cell generation system in the 35 U.S.C. § 102(e) described hereinabove, including a frame member (4) constituting an outer wall of the first compartment (1), and providing an inlet (C) and an outlet (D) in the first compartment (1).

Armstrong is silent to: the outlet of the first compartment being provided with a ventilation fan (claims 3 & 7); and placing the fuel cell body (24) between the inlet (C) and outlet (D) of the first compartment (1) (claim 4).

However, Schmidt teaches that it is conventional to employ a fuel cell generation system, wherein the fuel cell body is placed between the inlet (C) and outlet (D) in the first compartment (claim 4) and a ventilation fan (E) in outlet (D) (claims 3 & 7). The generation system is illustrated as follows:



Armstrong and Schmidt are analogous art, because they are from the same field of endeavor, namely, fabricating fuel cell generation systems enclosed in packaging.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to employ the ventilation fan and inlet/outlet

arrangement of Schmidt in the fuel cell system of Armstrong, in order to allow cooling air to be drawn through the fuel cells stack to maintain operating temperature.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Armstrong U.S. Patent 6,682,841 in view of Schmidt U.S. Pub. 2004/0072046 and further in view of Lloyd et al. U.S. Patent 6,532,792.

Armstrong in view of Schmidt teaches a fuel cell generation system comprising a ventilation fan in the outlet of the first compartment, as described in the 35 U.S.C. § 103(a) above.

Armstrong is silent to a flammable gas detector provided in the vicinity of the ventilation fan.

Lloyd teaches that it is conventional to employ gas sensors in fuel cell systems due to feedstock have flammable gases (col. 1, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the flammable gas sensor of Lloyd in the fuel cell system of Armstrong, in order to test for gas contaminants which may create a potential hazard.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Michael Barr, may be reached at 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MW

11/25/04

A handwritten signature in black ink, appearing to read "Michael Barr", with a large, sweeping underline.

MICHAEL BARR
SUPERVISORY PATENT EXAMINER